

1. Record Nr.	UNINA9910388765003321
Titolo	The Public broadcasting report
Pubbl/distr/stampa	[Washington], : Television Digest, Inc
Descrizione fisica	1 online resource
Disciplina	384.54/43
Soggetti	Public radio Public television Broadcasting - United States Broadcasting Periodicals. United States
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	"The authoritative news service for public broadcasting and allied fields."

2. Record Nr.	UNINA9911034960003321
Autore	Mercier Bertrand
Titolo	Simple Models for Understanding Nuclear Reactor Physics // by Bertrand Mercier
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-98532-X
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (287 pages)
Collana	Physics and Astronomy Series
Disciplina	539.7
Soggetti	Nuclear physics Nuclear engineering Quantum theory Mathematical physics Nuclear Physics Nuclear Energy Quantum Physics Theoretical, Mathematical and Computational Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Chain reaction principle and effective multiplication factor -- 2. Reminders -- 3. Principle of fast neutron reactors -- 4. Why does it make sense to slow down neutrons? -- 5. Fermi's 4-factors formula.
Sommario/riassunto	This book provides engineers with a comprehensive understanding of nuclear reactor physics and neutronics, emphasizing the importance of simple models to validate complex computational results. It explains the rationale behind neutron slowing down and offers a straightforward method to evaluate the resonance escape probability in Fermi's 4-factors formula. The book includes exercises to assess the remaining three factors and demonstrates how to derive the diffusion approximation from the Boltzmann equation. It covers both one-group and two-group diffusion models, applying them to predict the reactivity of a nuclear reactor core. Special attention is given to the selection of the migration area. Additionally, the book addresses delayed neutrons, reactor kinetics, fission product poisoning, fuel evolution, fuel management, critical size, temperature effects, and

xenon oscillations. Originally written for students, it contains 28 exercises with solutions provided in the appendix, making it an invaluable resource for both learning and practical application in the field.
